1054-46-83   **Alexander Kumjian*** (`alex@unr.edu`), Department of Mathematics, MS 084, University of Nevada, Reno, NV 89557, and **Astrid an Huef** and **Aidan Sims**. *Diagonals in Fell algebras,.* Preliminary report.

We say that a C^*-algebra A is Fell (or type I_0) if it is generated by abelian elements. In this case A is almost a continuous trace algebra but $\widehat{A}$ need not be Hausdorff. Such algebras arise naturally in the study of certain dynamical systems. We prove:

- An abelian C^*-subalgebra B of a type I_0 algebra A is a diagonal iff it satisfies the extension property. (i.e. pure states of B extends uniquely).

- Up to Rieffel-Morita equivalence (RME) each such A contains a diagonal.

- The twists arising from RME algebras of type I_0 containing diagonals are equivalent in a natural sense.

This opens the door for a classification of such algebras up to RME. (Received September 05, 2009)